

Fort Reno, Indian Territory, 1st, 2d, 3d, 5th to 9th, 15th to 22d, 29th, 30th.

North Platte, Nebraska, 14th, 15th.

De Soto, Nebraska, 26th, 31st.

Genoa, Nebraska, 30th.

Fort Totten, Dakota, 19th, northwest of station.

Fort Sully, Dakota, 13th, 14th, 31st.

West Las Animas, Colorado, 19th.

Fort Elliott, Texas, 31st.

Moorestown, New Jersey, 25th.

Wilmington, North Carolina, 9th, 11th.

During the night of the 17-18th, a fire occurred in the woods in Suffolk county, Long Island, and burned over an area of three square miles of timber land.

POLAR BANDS.

Polar bands were reported during the month by the following stations:

Lead Hill, Arkansas, 23d.

Sacramento, California, 8th, 12th.

Montrose, Colorado, 6th, 11th, 20th.

Bismarck, Dakota, 15th.

Indianapolis, Indiana, 17th.

Guttenburg, Iowa, 22d.

Leavenworth, Kansas, 15th.

Maud, Kansas, 2d, 3d, 14th, 20th, 29th, 30th, 31st.

Yates Center, Kansas, 2d, 3d, 18th, 20th.

Portland, Maine, 22d.

Emmitsburg, Maryland, 15th.

Amherst, Massachusetts, 12th, 18th,

Somerset, Massachusetts, 23d.

Moorestown, New Jersey, 21st.

Mountainville, New York, 12th.

Wauseon, Ohio, 5th, 11th, 17th, 20th, 27th.

Point Judith, Rhode Island, 12th, 18th.

Providence, Rhode Island, 12th.

Nashville, Tennessee, 1st.

El Paso, Texas, 7th, 13th, 29th.

Rio Grande City, Texas, 2d, 28th.

Woodstock, Vermont, 22d, 23d, 24th.

Dale Enterprise, Virginia, 4th.

Wytheville, Virginia, 3d, 18th, 31st.

SUN SPOTS.

Professor David P. Todd, director of the Lawrence Observatory, Amherst, Massachusetts, furnishes the following record of sun spots for March, 1885:

| Date— Mar., 1885. | No. of new | | Disappeared by solar rotation. | | Reappeared by solar rotation. | | Total No. visible. | | Remarks. |
|----------------------|------------|-----------------|--------------------------------------|----------------|-------------------------------------|-------|-----------------------|------------------|--------------------------|
| | Gr'ps | Spots | Gr'ps | Spots | Gr'ps | Spots | Gr'ps | Spots | |
| 2, 12 m. | 2 | 25 ⁺ | 0 | 0 | 0 | 0 | 5 | 90 ⁺ | Many of the spots small. |
| 3, 5 p. m. | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 90 ⁺ | |
| 4, 10 a. m. | 2 | 5 | 0 | 0 | 2 | 5 | 6 | 140 ⁺ | |
| 5, 5 p. m. | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 130 ⁺ | |
| 5, 4 p. m. | 0 | 20 ⁺ | 0 | 0 | 0 | 0 | 6 | 150 ⁺ | |
| 6, 11 a. m. | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 120 ⁺ | |
| 8, 4 p. m. | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 65 ⁺ | |
| 5 p. m. | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 60 ⁺ | |
| 10, 11 a. m. | 2 | 5 | 0 | 0 | 2 | 5 | 6 | 25 ⁺ | |
| 11, 12 m. | 1 | 5 | 2 | 5 ⁺ | 1 | 3 | 4 | 20 ⁺ | |
| 12, 3 p. m. | 0 | 0 | 2 | 5 ⁺ | 0 | 0 | 4 | 15 ⁺ | |
| 13, 4 p. m. | 2 | 5 ⁺ | 0 | 0 | 1 | 1 | 6 | 20 ⁺ | |
| 14, 12 m. | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 15 ⁺ | |
| 16, 3 p. m. | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 15 ⁺ | |
| 17, 1 p. m. | 0 | 0 | 1 | 2 | 0 | 0 | 4 | 12 ⁺ | |
| 18, 11 a. m. | 1 | 2 | 0 | 0 | 1 | 2 | 4 | 15 ⁺ | |
| 21, 11 a. m. | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 3 | |
| 22, 6 p. m. | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | |
| 23, 5 p. m. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 24, 12 m. | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | |
| 25, 5 p. m. | 1 | 9 | 0 | 0 | 1 | 2 | 3 | 12 | |
| 26, 4 p. m. | 1 | 12 ⁺ | 0 | 0 | 1 | 12 | 4 | 25 ⁺ | |
| 28, 11 a. m. | 0 | 20 ⁺ | 0 | 0 | 0 | 0 | 3 | 40 ⁺ | |
| 30, 1 p. m. | 0 | 20 ⁺ | 0 | 0 | 0 | 0 | 3 | 60 ⁺ | |
| 31, 12 m. | 1 | 1 | 0 | 0 | 1 | 1 | 3 | 50 ⁺ | |

Faculae were seen at the time of every observation. †Approximated.

SUNSETS.

The characteristics of the sky, as indicative of fair or foul weather for the succeeding twenty-four hours, have been ob-

served at all Signal Service stations. Reports from one hundred and sixty-five stations show 5,065 observations to have been made, of which three were reported doubtful; of the remainder, 5,062, there were 4,431, or 87.5 per cent., followed by the expected weather.

SAND STORM.

Fort Thomas, Arizona, 8th.

WATER-SPOUTS.

On March 12th, in latitude N. 33° 24', longitude W. 73° 38', Captain W. G. Shackford, of the s. s. "Acapulco" observed a water-spout at 9 a. m.

The brig "Mary Fink," Captain Daniel B. Darrah, in N. 29° 13', W. 79° 17' reports having observed a large water-spout astern of the vessel, moving from southwest to east, and distant about three miles; four large, and several small water-spouts were also observed to the eastward on the same date.

The brig "L. F. Munson," J. H. Smith, master, reports having observed on the 17th, several water-spouts between N. 31° 55', W. 75° 34' and N. 33° 16', W. 74° 57'.

NOTES AND EXTRACTS.

The following extract is from the March, 1885, report of the "Alabama Weather Service," under direction of Prof. P. H. Mell, jr.:

The month of March has been cold and dry with few hard winds, reversing its usual character for heavy rains and violent winds. The temperature was nine degrees below the normal, frosts were frequent and the ground was frozen several times. This cold March following a cold winter has retarded the progress of all vegetation. In north Alabama the wheat crop has been destroyed by the unusual cold; corn was not generally planted until the last week of the month; plum and peach trees were just beginning to bloom at that time, and gardens are reported as fully a month behind. In central Alabama the season is well described by our correspondent at Greensboro:

"Our forests are still bare, although our earliest forest trees generally begin to bud the first week in March. A very few peach trees in the warmest exposures and common plum trees began blooming the second week in March, but most of our peach trees bloomed about the 31st, while only a few pear trees opened their first buds by the 31st. Red maples and early elms began blooming the second week in March. No corn is up and no cotton is planted. This the most backward spring we have had, perhaps, since 1855." In south Alabama the young corn just coming up was seriously injured by the severe cold of the 23d, and a large percentage had to be replanted; truck farmers have lost heavily by the backward season, and all farm work is retarded by the continued cold weather and frequent rains, and it is feared that the corn has been planted so late that it will interfere with the cotton crop, as both will require attention at the same time. The 23d was the coldest day recorded for March since 1873.

The average rainfall was four inches below the normal. There were five rainless days. The rainfall for south Alabama nearly doubled that of the other sections of the state.

There was no rain on the 16th, and all stations report a clear view of the eclipse.

State summary.

Mean temperature, 49°.8; highest temperature, 82° at Eufaula on the 28th; lowest temperature, 14°, at Gadsden on the 23d; range of temperature, 68°; greatest monthly range of temperature, 56° at Gadsden; least monthly range of temperature, 30° at Fayette; mean daily range, 15°.6; greatest daily range of temperature, 42° at Gadsden on the 3d; least daily range of temperature, 0° at Clintonville on the 18th, and Bolling on the 25th, and Carrollton on the 22d.

Mean depth of rainfall, 2.99 inches; mean daily rainfall, 0.096; greatest depth of monthly rainfall, 6.36 inches at Mobile; least depth of monthly rainfall, 1.29 inches at Tuscumbia; greatest daily rainfall, average for the state, 0.76 of an inch, on the 28th; greatest local daily rainfall, 3.05 inches at Clintonville on the 28th.

Days of general rainfall, 1st, 4th, 12th, 21st, 25th, 27th, 28th; average number of days on which rain fell, 9; average number of cloudy days, 11; average number of fair days, 8; average number of clear days, 12; warmest days, 12th, 28th, 31st; coldest day, 23d.

Prevailing direction of wind, northwest.

Snow fell in north Alabama on the 8th to a depth of two inches; it extended as far south as Lafayette; an additional slight fall of snow is reported on the 17th at Mount View, Tuscumbia, Florence, and Centre.

The month was remarkably free from heavy gales. Mobile reports that the greatest force of wind was 26 miles an hour from the west; Montgomery, 23 miles from the northwest; Chattanooga, 22 miles from the northwest. Some stations report strong winds accompanying the thunder-storm of the 28th; and the newspapers state that on that day a small tornado did much damage at Sidney, thirty miles from Mobile.

Thunder-storms were general on the 12th, 27th, and 28th; hail is reported